



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,386	05/03/2006	Helmut Jerg	2003P01287W0US	1892

46726 7590 11/10/2010
BSH HOME APPLIANCES CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
100 BOSCH BOULEVARD
NEW BERN, NC 28562

EXAMINER

RIGGLEMAN, JASON PAUL

ART UNIT

PAPER NUMBER

1711

NOTIFICATION DATE

DELIVERY MODE

11/10/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

NBN-IntelProp@bshg.com

Office Action Summary

Application No.

10/578,386

Applicant(s)

JERG ET AL.

Examiner

JASON P. RIGGLEMAN

Art Unit

1711

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-42 is/are allowed.
- 6) ☒ Claim(s) 11-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/200)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse, of claims 11-39 and 41, in the reply filed on 7/27/2010 is acknowledged. The traversal is on the ground(s) that that searching the non-elected claims is not a serious burden. Since generic claim 24 is allowed, the restriction of claims 40 and 42 is withdrawn.

Status of Claims

2. Applicant's reply, filed 7/27/2010, has been received. Current pending claims are 11-42. No claims are amended. Claims 1-10 are cancelled. Claims 15, 24-26, 28-33, 35-37 are amended. Claims 40 and 42 are withdrawn.

Response to Arguments

3. Applicant's arguments filed 7/27/2010 have been fully considered. The previous claim objection is withdrawn. The previous 112, 2nd paragraph, rejection of claims 11, 13, 15 and 20, are withdrawn in view of the applicant's arguments.

4. The applicant argues that Lutolf "does not teach at least one distributor for regulating the supply of rinsing liquid to the at least one spray channel. Applicant argues that the check valves 60, 80, of Lutolf fails to teach that the pressure is variable and that the check valves do not vary the pressure of the liquid. Examiner states that the claims do not require any such structure. For example, in claim 11, the only requirement is that there is a pipe with open ends which liquid "can be supplied in a pressurized manner". This is both intended use and not a positive recitation due to the optional language used. The applicant further argues that the ends of the spray channel in Lutolf are not "open". Examiner states, the Lutolf reference teaches ends in which liquid can be supplied – they

Art Unit: 1711

are "open". The applicant has failed to amend the original claims and the language of the claims is extremely broad. Applicant's arguments that one would not modify Lutolf with Van Dijk are not persuasive. It is just as impractical to manually operate valves on a foot bath as on a dishwashing machine. The fundamental principle is that surges of liquid can be produced by opening the valves. It would be obvious to combine the references to produce fine control of the pulsing of the spray -- which is especially useful in a system with a stationary spray system -- to effectively wash the dishes and achieve the expected result. The applicant's argument that there is no articulated reasoning with some rational underpinning to support the conclusion of obviousness, in regards to the rejection of claims 12-13 and 16 a 35 U.S.C. 103(a) as being unpatentable over Lutolf (FR2285838) in view of Van Dijk (US Patent No. 2654894) in view of Steen (GB Patent Publication No. GB949954) and further in view of Bolla (CH571852), is not true. Examiner stated it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf, as modified by Van Dijk, as modified by Steen, with Bolla to create a dishwashing machine with an automated-alternating spray pattern with fine control to achieve the expected result. The claim language of the distributor being movable in a selected one of a to-and-fro displacement and not a to-and-fro displacement simply permits the option of a movement of a non to-and-fro displacement, only. The applicant's arguments that the Perry reference simply discloses a stationary valve having a slide plate that reciprocates in the slot is "NOT mounted to be movable in a selected one of a to-and-fro movement in alternating directions" is not understood. Examiner states that the slot reciprocates, thus a to-and-fro movement. The rejections are maintained.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11, 14, 18-19, and 21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Lutolf (FR2285838) in view of Van Dijk (US Patent No. 2654894) in view of Steen (GB Patent Publication No. GB949954).

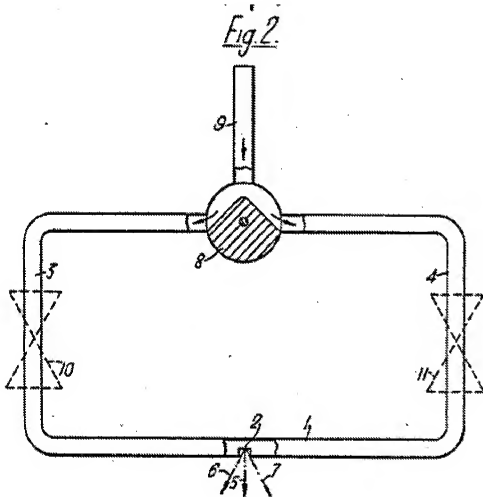
7. Lutolf teaches a dishwasher having a spray device including spray channel (3) and distributors, valves (80) (60), feeding the spray channel (3) which cooperate to *regulate* a quantity of rinsing liquid supplied to the spray channel (3) and a pressure of the rinsing liquid in parts of the spray channel. The spray channel has two open ends (each open end connects to the open valve) which rinsing liquid can be supplied in pressurized manner, see Figure. The pressure is variable -- by means of the valves (80) (60). The rinsing container (1) is trough-shaped. The valves have one opening (*inherent*) in which liquid can be supplied in a pressurized manner via an open end of the spray channel in a predetermined position of the distributor. The openings (see spray patterns) are necessarily configured over a predetermined arc segment.

8. In the alternative, Lutolf does not teach that the check valves (60)(80) cooperate to *regulate* the flow of liquid to the spray channels; however, Van Dijk teaches a cleaning device in which a conduit (20) is supplied at each end by a distributor (valves 48 & 53), Fig. 1. Van Dijk teaches that “the degree of turbulence of the liquid may be increased by opening both valves 48 and 53, or they (either of them) may be

Art Unit: 1711

rhythmatically opened and closed to provide surges of liquid" (Column 4, Lines 59-64).

Further, Steen teaches feeding liquid under pressure, towards one another, two columns of liquid which collide to create a lateral spray at the point of collision to create pulsating pressure actions of different phase (Lines 24-39).



9.

10. The pulsing permits fine control of the angle of spread of the spray (Lines 45-50), see Fig. 2, inserted into text, above. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf with the teachings of Van Dijek and Steen to create a washing machine in which there is fine control of the pulsing of the

Art Unit: 1711

spray -- which is especially useful in a system with a stationary spray system -- to effectively wash the dishes and achieve the expected result.

11. Claims 12-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutolf (FR2285838) in view of Van Dijck (US Patent No. 2654894) in view of Steen (GB Patent Publication No. GB949954) and further in view of Bolla (CH571852).

12. Lutolf teaches a dishwasher having a spray device including spray channel (3) and distributors, valves (80) (60), feeding the spray channel (3) which cooperate to *regulate* a quantity of rinsing liquid supplied to the spray channel (3) and a pressure of the rinsing liquid in parts of the spray channel. The spray channel has two open ends (each open end connects to the open valve) which rinsing liquid can be supplied in pressurized manner, see Figure. The pressure is variable -- by means of the valves (80) (60). The rinsing container (1) is trough-shaped. The valves have one opening (*inherent*) in which liquid can be supplied in a pressurized manner via an open end of the spray channel in a predetermined position of the distributor. The openings (see spray patterns) are necessarily configured over a predetermined arc segment.

13. In the alternative, Lutolf does not teach that the check valves (60)(80) cooperate to *regulate* the flow of liquid to the spray channels; however, Van Dijck teaches a cleaning device in which a conduit (20) is supplied at each end by a distributor (valves 48 & 53), Fig. 1. Van Dijck teaches that "the degree of turbulence of the liquid may be increased by opening both valves 48 and 53, or they (either of them) may be rhythmically opened and closed to provide surges of liquid" (Column 4, Lines 59-64). Further, Steen teaches feeding liquid under pressure, towards one another, two columns

Art Unit: 1711

of liquid which collide to create a lateral spray at the point of collision to create pulsating pressure actions of different phase (Lines 24-39).

14. The pulsing permits fine control of the angle of spread of the spray (Lines 45-50), see Fig. 2. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf with the teachings of Van Dijck and Steen to create a washing machine in which there is fine control of the pulsing of the spray -- which is especially useful in a system with a stationary spray system -- to effectively wash the dishes and achieve the expected result.

15. Lutolf as modified by Van Dijck, as modified by Steen does not teach the periodic movement of the distributor; however, Bolla teaches a distributor (8) which is movable relative to a spray channel in a movement, Figs. 1-2. There is a drive means for driving the distributor in periodic movement. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf, as modified by Van Dijck, as modified by Steen, with Bolla to create a dishwashing machine with an automated-alternating spray pattern with fine control to achieve the expected result.

16. Claims 12-13, 16, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutolf (FR2285838) in view of Van Dijck (US Patent No. 2654894) in view of Steen (GB Patent Publication No. GB949954) and further in view of Perry (US Patent No. 6003529) and Deuser et al. (UK Patent Application Publication No. 2003840).

17. Lutolf teaches a dishwasher having a spray device including spray channel (3) and distributors, valves (80) (60), feeding the spray channel (3) which cooperate to *regulate* a quantity of rinsing liquid supplied to the spray channel (3) and a pressure of the rinsing liquid in parts of the spray channel. The spray channel has two open ends

Art Unit: 1711

(each open end connects to the open valve) which rinsing liquid can be supplied in pressurized manner, see Figure. The pressure is variable -- by means of the valves (80) (60). The rinsing container (1) is trough-shaped. The valves have one opening (*inherent*) in which liquid can be supplied in a pressurized manner via an open end of the spray channel in a predetermined position of the distributor. The openings (see spray patterns) are necessarily configured over a predetermined arc segment.

18. In the alternative, Lutolf does not teach that the check valves (60)(80) cooperate to *regulate* the flow of liquid to the spray channels; however, Van Dijk teaches a cleaning device in which a conduit (20) is supplied at each end by a distributor (valves 48 & 53), Fig. 1. Van Dijk teaches that "the degree of turbulence of the liquid may be increased by opening both valves 48 and 53, or they (either of them) may be rhythmatically opened and closed to provide surges of liquid" (Column 4, Lines 59-64). Further, Steen teaches feeding liquid under pressure, towards one another, two columns of liquid which collide to create a lateral spray at the point of collision to create pulsating pressure actions of different phase (Lines 24-39).

19. The pulsing permits fine control of the angle of spread of the spray (Lines 45-50), see Fig. 2. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf with the teachings of Van Dijk and Steen to create a washing machine in which there is fine control of the pulsing of the spray -- which is especially useful in a system with a stationary spray system -- to effectively wash the dishes and achieve the expected result.

20. Lutolf as modified by Van Dijk as modified by Steen does not teach the to-and-fro movement of the distributor in alternating directions and the drive means ; however,

Art Unit: 1711

Perry teaches a plate-type distributor (valve 40) which is movable related to the spray channel in a displacement movement in alternating directions, Fig. 2. There is a drive means for driving the distributor in periodic movement. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf as modified by Van Dijk as modified by Steen with Perry to create a dishwashing machine with an alternating spray pattern to achieve the expected result. Deuser et al. illustrates the pervasive use and motivation for alternating spray patterns – in particular for washing 3-D objects such as containers.

21. Claims 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutolf (FR2285838) in view of Van Dijk (US Patent No. 2654894) in view of Steen (GB Patent Publication No. GB949954) and further in view of Perry (US Patent No. 6003529) and Deuser et al. (UK Patent Application Publication No. 2003840) and Hamilton (US Patent No. US3512539).

22. Lutolf teaches a dishwasher having a spray device including spray channel (3) and distributors, valves (80) (60), feeding the spray channel (3) which cooperate to *regulate* a quantity of rinsing liquid supplied to the spray channel (3) and a pressure of the rinsing liquid in parts of the spray channel. The spray channel has two open ends (each open end connects to the open valve) which rinsing liquid can be supplied in pressurized manner, see Figure. The pressure is variable -- by means of the valves (80) (60). The rinsing container (1) is trough-shaped. The valves have one opening (*inherent*) in which liquid can be supplied in a pressurized manner via an open end of the spray channel in a predetermined position of the distributor. The openings (see spray patterns) are necessarily configured over a predetermined arc segment.

23. In the alternative, Lutolf does not teach that the check valves (60)(80) cooperate to *regulate* the flow of liquid to the spray channels; however, Van Dijck teaches a cleaning device in which a conduit (20) is supplied at each end by a distributor (valves 48 & 53), Fig. 1. Van Dijck teaches that "the degree of turbulence of the liquid may be increased by opening both valves 48 and 53, or they (either of them) may be rhythmatically opened and closed to provide surges of liquid" (Column 4, Lines 59-64). Further, Steen teaches feeding liquid under pressure, towards one another, two columns of liquid which collide to create a lateral spray at the point of collision to create pulsating pressure actions of different phase (Lines 24-39).

24. The pulsing permits fine control of the angle of spread of the spray (Lines 45-50), see Fig. 2. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf with the teachings of Van Dijck and Steen to create a washing machine in which there is fine control of the pulsing of the spray -- which is especially useful in a system with a stationary spray system -- to effectively wash the dishes and achieve the expected result.

25. Lutolf as modified by Van Dijck as modified by Steen does not teach the to-and-fro movement of the distributor in alternating directions and the drive means ; however, Perry teaches a plate-type distributor (valve 40) which is movable related to the spray channel in a displacement movement in alternating directions, Fig. 2. Further, the valve is a variable valve and can control the flow rate to between *fully open, fully closed, or any flow rate there between* (Column 1, Lines 59-61). There is a drive means for driving the distributor in periodic movement. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf as modified by Van Dijck as

Art Unit: 1711

modified by Steen with Perry to create a dishwashing machine with an alternating spray pattern to achieve the expected result. Deuser et al. illustrates the pervasive use and motivation for alternating spray patterns – in particular for washing 3-D objects such as containers.

26. Lutolf as modified by Van Dijck as modified by Steen with Perry does not teach the distributor having a drive slot and driven by a rotary disk; cam arranged on the rotary disk and engaging the drive slot in the distributor; however, Hamilton teaches a drive means in which a shaft is reciprocated in to-and-fro movement by a drive slot (105) driven by a rotary disk (crank wheel 99) and the cam (pin 101) is arranged on the rotary disk and engages the drive slot to cause movement, (Column 3, Lines 44-53), Fig. 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lutolf as modified by Van Dijck as modified by Steen with Perry with Hamilton to have a automated reciprocating distributor to create a fine spray pattern to achieve the expected result.

27. Claims 11-16 and 18-21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Bolla (CH571852) in view of Steen (GB Patent Publication No. GB949954).

28. Bolla teaches a dishwasher having a spray device including parallel spray channels (10) and a distributor distributors feeding the spray channels (3) which *regulates* a quantity of rinsing liquid supplied to the spray channel (3) and a pressure of the rinsing liquid in parts of the spray channel. The spray channel has at least one open end. The pressure is variable -- by means of the distributor. The rinsing container is not taught as trough-shaped; however, it is widely known in the art to use such a container –

Art Unit: 1711

see Lutolf (FR2285838) The distributor has one opening in which liquid can be supplied in a pressurized manner via an open end of the spray channel in a predetermined position of the distributor. The openings (see spray patterns) are necessarily configured over a predetermined arc segment. The distributor (8) is movable relative to a spray channel in a movement, Figs. 1-2. There is a drive means for driving the distributor in periodic movement.

29. Bolla does not teach that use of two distributors nor two open ends on the spray channels; however, Steen teaches feeding liquid under pressure, towards one another, two columns of liquid which collide to create a lateral spray at the point of collision to create pulsating pressure actions of different phase (Lines 24-39). The pulsing permits fine control of the angle of spread of the spray (Lines 45-50), see Fig. 2, inserted into text, above. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Bolla with the teachings of Steen, hence creating a dual-distributor system with two open ends on the spray channels to create a washing machine in which there is fine control of the pulsing of the spray -- which is especially useful in a system with a stationary spray system -- to effectively wash the dishes and achieve the expected result.

Allowable Subject Matter

30. Claims 24-42 are allowed.

31. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach the plate-shaped distributor with a plurality of openings for coupling with a plurality of first open ends -- the closest art is Bolla which is not plate-shaped and does not move in a to-and-fro movement.

Conclusion

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Crane et al. (US Patent No. 4738222) teaches "open" ends on a washing device spray tube.

33. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON P. RIGGLEMAN whose telephone number is (571)272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1711

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit 1711

Jason P Riggleman
Examiner
Art Unit 1711

/J. P. R./
Examiner, Art Unit 1711